

REMARKS/ARGUMENTS

This application was subjected to a restriction requirement in which the Examiner stated that the application contains claims directed to the following patentably distinct species of the claimed invention: 1) Figures 1-2; and 2) Figure 2A. A further restriction requirement was entered based on the patentably distinct subspecies: a) Figure 6; and b) Figure 7. The undersigned affirms the election without traverse to prosecute the invention of species 1, subspecies a. Original claims 1-8, 11 and 12 read on the elected species and subspecies.

The undersigned's notes regarding the telephone conversation with the Examiner on March 6, 2003 indicate that the Applicants elected to pursue claims 1-8 and 10-12. The undersigned agrees with the Examiner that claim 10 was elected in error and should be withdrawn or canceled, but claims 8 and 12 are clearly applicable to the embodiment shown in Figures 1 and 2. Since Applicants would like to incorporate the subject matter of claims 8 and 12 into claims 1 and 11 respectively, Applicants respectfully request that the subject matter of claims 8 and 12 be reinstated as being drawn to the elected invention.

The specification has been amended at paragraph [0033] pursuant to claims 8 and 12. Claims 8 and 12 constituted a part of the original disclosure. Various other minor errors of a typographical or clerical nature have been corrected in the specification. No new matter has been added.

The specification was objected to as failing to provide proper antecedent basis for claims 5 and 6. Claim 6 has been amended to replace "pumping mechanism" in the preamble with "pump" so as to match the other claims. Claims 5 and 6 are adequately supported by paragraph [0028] of the specification and Figure 6. An obvious error in Claim 6 has also been corrected with respect to the position of the first occlusion means 106. Support for the correction is found in paragraph [0028].

Claims 1-7 and 11 stand rejected for the following reasons. Claims 2 and 11 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Claims 2 and 11 have been amended to provide proper antecedent basis and clarity respectively.

Claims 1-7 and 11 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Dockum et al (US 4,014,318), Davis (US 6,312,227), Bamberg (US 3,778,195), Pulman et al (US 3,658,445), and Briggs (WO 98/56543). Applicants respectfully traverse the § 103 rejection for the following reasons.

Claims 1 and 11 have been amended to include the limitations of original claims 7, 8, and/or 12. Amended claims 1 and 11 require that said tube set receiving portion

opposite said blade defines an engagement surface constructed to engage a portion of an exterior surface of a length of tube disposed in said tube set receiving portion, said engagement surface constructed to inhibit movement of a length of tube disposed in said tube set receiving portion when said blade is moved from said second position to said first position; wherein said engagement surface defined by said tube set receiving portion is arcuate in cross-section, and wherein said engagement surface is constructed to engage at least 120° of a circumferential exterior surface of a length of tube disposed in said tube set receiving portion. The cited prior art fails to show or suggest an arcuate engagement surface that is located and constructed to engage a circumferential exterior surface of a tube opposite the blade. FIGS. 1 and 2 support the limitation regarding the location of the engagement surface opposite the blade.

Dockum (FIGS. 1, 3, 5 and 9) and Briggs (FIGS. 5 and 6) show slots that are rectangular in cross-section with respect to the circumferential exterior surface of the tube opposite the blade or reciprocating member. Bamberg shows in FIG 6 a channel that is also rectangular in cross-section. Pulman shows a flat anvil surface 5 in FIGS. 1, 2, 5, and 6. As best understood in view of FIGS. 1-3, Davis shows a channel opposite the pumping mechanism 64 that is not arcuate either. Although Pulman and Davis teach restraining the tube at remote locations upstream and downstream of the pumping mechanism by arcuate clips, they fail to teach, and actually teach away from, restraining the tube on an arcuate engagement surface at the critical location opposite the blade, as claimed in the applicant's invention. As a result, they also lack teaching that such an engagement surface should be constructed to engage at least 120 degrees of a circumferential exterior surface of a length of tube disposed in the tube set receiving portion. The arcuate engagement surface encompassing such an angle assists in more positively locating the tube, more effectively inhibiting lateral movement of the tube when engaged by the blade, more accurately controlling pumping action, and resisting excessive permanent deformation. For these reasons, claims 1 and 11 are believed to be patentable over the prior art of record.

Claims 2-6 depend from claim 1 and at least derive their patentability therefrom.

New claims 21 and 22, which depend from claims 1 and 11 respectively, have been added. These claims read on the elected invention and both subspecies, as illustrated in FIGS 1, 2, 6 and 7. Paragraph [0033], FIGS. 1-2, and original claims 1, 7, 8, 11 and 12 support new claims 21 and 22. New claims 21 and 22 at least derive their patentability from claims 1 and 11 respectively, but are also believed to be patentable in their own right because the prior art does not show or suggest a groove constructed to

engage at least 120 degrees and not more than 180 degrees of a circumferential surface of a length of tube in a door hingedly attached to a pump housing.

A Petition for Extension of Time by one month with authorization to charge the appropriate fee to a deposit account is enclosed. No further fees or requests for extension of time are believed to be due in connection with this paper; however, the Commissioner is authorized to consider this a request for any additional extension of time and to charge our Deposit Account 01-0025 for any additional fees (or credit any over payments) that may be required under 37 C.F.R. §§ 1.16 and 1.17 in association with this communication for which full payment has not been tendered.

Applicants respectfully request reconsideration of this application and a Notice of Allowance.

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Respectfully submitted,
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